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Investigating the Relationship between Technical and Legal Factors with Tendency of Villagers to Use E-Banking Services (Case Study: Agricultural Bank Branches in Ilam)

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Abstract

The purpose of this study was to investigate Relationship between Technical and Legal factors with tendency of the villagers to use e-banking services. The Method of this study is descriptive- correlative. The main data gathering tool in the current study is a made questionnaire which is designed and executed based on the conceptual background of the subject matter and the objectives and hypotheses of the study. Contextual and facial validity of the questionnaire were confirmed by a panel of experts in agricultural training and expansion including the professors at the Islamic Azad University of Ilam and Ilam University and after revising the ambiguous questions based on their points of views the reliability of the questionnaire was tested using Cronbach's Alpha coefficient and based on the obtained value ($\alpha = 84.4$) it is obvious that the questionnaire can finely assess the research variables. The statistical population of this study includes all the customers of rural branches of Agricultural Bank in Ilam Province (N=82885). Among these 120 participants were chosen through sample size determination formula and they were studied using stratified random sampling method. The data analysis task was done using the SPSS software application and it was carried out in two levels; namely descriptive statistics (center-oriented statistics and distribution) and analytical statistics (Spearman's Correlation Coefficient in order to test the correlational hypotheses of the research). In the analytical statistics level the results obtained from calculating Spearman's Correlative Coefficient showed that Technical and Legal factors had a significant impact of the extent of the tendency of the villagers to use e-banking services of the Agricultural Bank at the 99% level.

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Keywords: E-banking, Agricultural Bank, Tendency, Technical factors, Legal factors

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1. Introduction

The most affected aspect of all is the trading sector and in turn the banking industry has seen staggering alterations. The majority of traditional banking activities are forgotten and instead e-banking has gained popularity, and this sector has turned into an information processing industry which based its activities on new concepts such as e-money, ATMs and so on (Gudarzi and Zobaidi, 2008). This leads to a situation where there is ample space for carrying out trading affairs and buying and selling processes which in turn leads to increasing competition among different banks and renders them facing several threats and barriers. In order to overcome these barriers and make use of the potential opportunities of the market, the banks should focus their assets on acquiring a competitive advantage. Several researches showed that banks can significantly upsurge their profitability by increasing their loyal customers as well as the satisfaction of those customers (Kolodimsky et al, 2004). Accepting electronic and online banking is gaining popularity in many countries in a way that the e-banking connection ratings in pioneer countries has extended to more than 50 percent (Teropik Karainext et al, 2004). Revolutions in e-banking and its increasing popularity and expansion is generally due to factors such as time independency, location independency, the high speed of transactions, low costs, simultaneous access to several banks and high quality of information (Hamidizadeh et al, 2007). In this regard the increasing attention of the banks in developed as well as developing countries to providing banking services through e-banking aimed at facilitating services for customers and reducing banking costs has created a stiff competition in e-banking industry which has forced the majority of banks to implement modern information and communication technologies (Bayat, 2008). Regarding the fact that villages and village residents are prominent features of civilization and social, economic and cultural life of any country, and their role and status they have been always a subject of attention for policy makers, managers and planners. Village as the basic unit of production and the social life of any nation affects other elements of the society and is affected by them too. The significant share of the villages in the country's population, a grave gap in accessing facilities and services, the necessity of pursuing social justice and creating balance between the cities and villages are all among the important issues that should be considered the development planning (Emadi and Darban Astaneh, 2004). However as mentioned before it seems that the e-banking industry haven't had a proper growth in Iran and it haven't been able to service all sectors of the society despite its great potential (Amadeh and Jafar Pour, 2009). Based on the census of the central bank of Iran more than 7 billion and 110 million bills are used in Iran which gives Iran the first place in the world. On the other hand the average life span of each bill is 5.3 years and in order to timely eliminate them each year 1 billion and 400 million bills should be eliminated and currently there is a capability of producing only 700 million bills (Amadeh and Jafar Pour qu. Ebrahimi, 2009). Also annually about 700 million utility bills are delivered to the households in Iran which exerts very grave financial and time costs (Shahbazi, 2008). Establishing e-banking not only leads improvement in service quality but also reduces 60 to 70 percent of banking costs. Also it can revolutionize all aspects of banking industry by quick contact with the customers and delivering services based on peer to peer need satisfaction. Regarding the fact that the national banking system realizes the importance of using electronic tools and on the other hand the lack of delivering timely banking services to all sections of the society is considered a massive barrier facing the economic development and expansion of the country it is necessary to carefully study the issues as well as the approaches of e-banking expansion in the country. Hence in the current study the researchers tried to investigate the different factors that can be effective on the tendency of villagers to use e-banking services because of the increasing role of e-banking in the monetary system of the country and the presence of several capabilities and opportunities in the rural communities of the country particularly in the Ilam Province so that based on the obtained applicable results the higher authorities related to the field (i.e. e-banking) can fully understand the present the capabilities and opportunities in order to eliminate the weaknesses and limits and design the pathways and priorities of their expected responsibilities and tasks at hand so that they can choose a proper leading and managing role for directing and supervising the related activities.

In this regard Ilam Province with having 40648 individuals (based on the 2006 census) in the rural population resident in 679 villages with the average literacy of 67 percent, and the unemployment rate of less than 7 percent possesses several capabilities and abilities for development (Iranian Census Organization, 2009) which can be used by the authority figures in several planning and activities. However on the other hand in the banking system quick task completion and being cost-effective is considered one of the most important elements of success in the banking competition arena and the customers too as the main pillars of determining the winner of this competition highly value technology and speed. In the modern banking era, banks require gathering sufficient information about the customers as well as understanding their needs and priorities and expanding their relationship with them in order to

become more efficient. Hence it is necessary that the banks act quickly for preserving their customers. Modern banking requires creative methods, effective customer oriented practices, providing efficient technologies, proper servicing and satisfying the needs of the customers. Any bank which can be more successful regarding the above-mentioned criteria can be more successful in the competition arena for attracting more resources and in turn stability and efficiency. This is while understanding the needs and priorities of the customers and determining the main barriers facing that is the best and most effective option presented to the banks in order to realize their objectives, since identifying the needs and priorities of the customers regarding the e-banking particularly among the rural communities have not yet attracted the sufficient amount of attention and a massive section of the national population generally and Ilam Province specifically constitute the rural communities. Carrying out these studies will help the decision makers and marketers to focus their attentions on these factors while designing their marketing campaigns. Based on the above-mentioned issues the main question of the current paper is that what are the most important Technical and Legal factors effective on the tendency of the villagers to use e-banking services?.

2. Literature Review And Hypotheses

2.1. Literature Review

Regarding the subject matter of the current study several studies have been done in Iran and other countries some of which are briefly visited in the following:

The results of the study carried out by Gilani Nia and Mousavian (2009) regarding the effective factors on the tendency of the customers to use the services showed that the impacts of different levels of the factors affecting the tendency of customers to use e-banking services were varied.

In a study titled “investigating the prerequisite factors, challenges and limits of expanding e-banking” carried out by Seydi Zadeh et.al. (2008) they dealt with identifying and rating the driving factors behind expanding e-banking as well as identifying and rating challenges and limitations of the e-banking system in Iran. The results of their study showed that designing the strategic programs by each bank based on the framework of the country’s electronic infrastructure is necessary for expanding the e-banking plans for increasing the velocity of service delivery and improving their competitive stance which will in turn lead to more efficiency and the profits from this added efficiency will compensate the service delivery costs. Moreover increasing the resources of high priority variables will compensate low priorities, reduces the number of staff and reduces the service delivery costs. Babazadeh (2005) in his dissertation titled “investigating the barriers to establish and expand e-banking in Iran” using a survey type research (questionnaire) reached the conclusion that low awareness extent of people regarding the benefits of e-banking, the weakness of the legal structure for entering the electronic environment, the governmental structure of commercial and professional banks, the weakness of infrastructure, low demand for e-banking and low supply of e-banking services were the main barriers for establishing and expanding e-banking in Iran. Based on the results of the study carried out by Salehi Maman (2004) locational utility, customers’ awareness, system integrity, service diversity, access/usage facility, and trust were the six effective factors on the tendency of the customers to use banking cash machines. From the point of view of users “trust” and from the point of view of non-users “locational utility” were the most important factors among the above-mentioned ones. Teo and Lin (2009) reached the conclusion that the firm size, higher management support, perceived indirect profits, and the commercial impact of partners had a significant positive relationship with accepting e-buying and the type of industry was not at all related to this variable. The objective of their study was to provide a better understanding of the relationship among the different factors of e-buying for the organizations. Laukkanen (2007) in his study titled “the comparison between the perceived value of internet and mobile banking of customers in payable accounting services” showed that efficiency, facility and security were among the most important customers’ needs which differentiate their perceived value of mobile and internet banking and the security were the main concern. The results of this study confirm the necessity of increasing managers’ information regarding the difference between the perceived value from different e-banking channels so that they can enact some measures in order to help their customers accept these channels more easily. The results obtained by Pour Mirza (2008) show significant differences among the demographic characteristics of the customers as well as their behaviors. Moreover the desk in the bank is specified as the most popular channel for the customers followed by ATMs, e-banking, phone banking, and email banking. Email banking receives the lowest usage rate from the customers. The demographic characteristics of the customers have a significant relationship with

accepting e-banking, along the way a better understanding of the e-banking efficiency was observed. The results show that security measures and low awareness about the e-banking and technical knowledge are the most important and fundamental barriers for accepting e-banking. Azizi Sarxani et al (2008) in their paper titled “investigating the present infrastructures in Tejarat Bank for establishing e-banking” reached the conclusion that cultural-educational factor needs more attention and improvement in comparison to other factors. The results of the study carried out by Seyyed Javadin and Yazdani (2005) show that technology acceptance model is a proper model for explaining the using behavior of e-banking services. And indeed the perceived attitudes of the individual towards the facility of using e-banking services and usefulness of these services as well as self-efficiency of the individual in using computers have a direct relationship with the willingness to use these services.

2.2. *Reserach Hypothesis*

In this study two main hypotheses are analyzed:

1. Technical factors are effective on the tendency of villagers to use e-banking services
2. Legal factors are effective on the tendency of villagers to use e-banking services

3. **Methodology**

3.1. *Research Goal*

The main Purpose of the current paper was to investigate the impacts of technical and legal factors on the tendency of villagers to use e-banking services in the time period between 2012 and 2013. To test the propositions, a field survey using questionnaires was conducted.

3.2. *Sample and Data Collection*

The current paper is an applied study considering its objectives, also regarding the data gathering time it is a retrospective study. Regarding the nature of the data it is a quantitative study, regarding the subject characteristics it is a causal study, regarding the supervising method it is a survey research, regarding the data gathering method it is a field study and regarding the extent of ability to control the independent variables of the research it is a non-empirical study. The analysis used in this study is descriptive- correlative. The main data gathering tool in the current study is a made questionnaire which is designed and executed based on the conceptual background of the subject matter and the objectives and hypotheses of the study. This questionnaire was designed with four parts. The first part gathered the information on the demographic characteristics of the population and the second part 20 Likert-organized questions are asked to determine the tendency of the villagers. In the third part 6 questions for measuring Technical factors and 5 questions for measuring Legal factors are presented. All the questions are designed based on closed six-option answers. Contextual and facial validity of the questionnaire were confirmed by a panel of experts in agricultural training and expansion including the professors at the Islamic Azad University of Ilam and Ilam University and after revising the ambiguous questions based on their points of views the reliability of the questionnaire was tested using Cronbach's Alpha coefficient and based on the obtained value ($\alpha = 84.4$) it is obvious that the questionnaire can finely assess the research variables. The statistical population of this study includes all the customers of rural branches of Agricultural Bank in Ilam Province (N=82885). Among these 120 participants were chosen through sample size determination formula and they were studied using stratified random sampling method. The independent variables of this study include psychological and socio-cultural factors and the dependent variable is the tendency of the villagers to use electronic services of Agricultural Bank

3.3. Analyses and Results

The data analysis task was done using the SPSS software application and it was carried out in two levels; namely descriptive statistics (center-oriented statistics and distribution) and analytical statistics (Spearman's Correlation Coefficient in order to test the correlational hypotheses of the research) and multiple regression analysis in order to determining of overall impact of Independent variable on the variances of dependent variable.

4. Result and Discussion

4.1. Descriptive studies

4.1.1. Determining the Ratings of Variables Related to Tendency to Use E-Banking Services

The extent of the tendency to use e-banking services was tested based on 20 items. In order to better describe these items the obtained information was formatted using Likert's five-option spectrum. This spectrum includes "very little", "little", "average", "much" and "very much". The quantitative value corresponding to "very little", is 1 and 5 is allocated to "very much". In order to determine the ranks of these items coefficient of variance (CV) was used which indicates the priority of the items regarding their positions in the ratings. It should be noted that here the average ratings are not to be considered as interval average. The ratings of the items are presented in Table 1.

Table 1. The Ratings of Variables Related to Tendency to Use E-Banking Services

Item	Mean	SD	CV	Rank
How much do you intend to use ATMs in the future?	3.68	1.30	0.35	1
How much do you consider using POS devices appropriate?	3.66	1.34	0.37	2
How much do you consider using internet appropriate for carrying out banking practices?	0.36	1.37	0.38	3
How much do you intend to use POS devices in the future?	3.66	1.39	038	4
How much do you consider using ATMs as a favorite experience?	3.42	1.31	038	5
How much do you consider using cellphones appropriate for carrying out banking practices?	3.55	1.40	0.39	6
How much do you currently use POS devices?	3.39	1.35	0.40	7
How much do you consider using POS devices as a favorite experience?	3.39	1.36	0.40	8
How much do you consider using cellphones for banking as a favorite experience?	3.53	1.42	0.40	9
How much do you consider using ATM devices appropriate?	3.58	1.45	0.40	10
How much do you consider using phones appropriate in banking services?	3.38	1.37	0.40	11
How much do you intend to use internet for banking purposes in the future?	3.52	1.54	0.44	12
How much do you intend to use phones for banking purposes in the future?	3.42	1.51	0.44	13
How much do you currently use ATMs?	3.19	1.41	0.44	14
How much do you consider using internet for banking purposes as a favorite experience?	3.32	1.54	0.46	15
How much do you intend to use cellphones for banking purposes in the future?	3.37	1.61	0.48	16
How much do you consider using phones for banking purposes as a favorite experience?	3.09	1.54	0.50	17
How much do you currently use phones for banking practices?	2.39	1.63	0.68	18
How much do you currently use cellphones for banking practices?	1.70	1.69	0.70	19
How much do you currently use internet for banking practices?	1.98	1.68	0.85	20

4.1.2. Determining the Ratings of Variables Related to the technical factors

In order to investigate Technical factors 6 items in a five-option Likert spectrum were used. This spectrum includes "very little", "little", "average", "much" and "very much". The quantitative value corresponding to "very little", is also 1 and 5 is allocated to "very much". In order to determine the ranks of these items coefficient of variance (CV) was also used. The rankings of these items are presented in Table 2. In order to better understand and rank the items when the average values are close, the standard deviation for each item is also indicated.

Table 2. The Ratings of Variables Related to technical Factors

Item	Mean	SD	CV	Rank
The Number of Electronic banking service centers (including ATM, card reader, Website of internet banking, etc.)	3.38	1.28	0.38	1
Quality of technical knowledge of Iranian experts in the field of electronic banking	3.16	1.32	0.42	2
Software and hardware facilities available in the field of electronic banking	3.13	1.31	0.42	3
Speed rate of operations when using electronic banking services	3.24	1.40	0.43	4
The number of internal experts in the field of electronic banking	2.93	1.37	0.47	5
Broadband Internet lines used in electronic banking services	2.74	1.34	0.49	6

4.1.3. Determining the Ratings of Items Related to legal factors

In Table 3 the ratings related to the items concerning legal factors are presented. Based on the results shown in this table it can be said that the item “Amount of support organizations involved in the field of electronic banking services” is the most important and the item “The Existence of rules related to electronic banking Offenses is the least important. Based on the obtained total average (3) it can be said that agreeing with the items of this factor on the part of the participants is average.

Table 3. Ratings of Items Related to legal Factors

Item	Mean	SD	CV	Rank
Amount of support organizations involved in the field of electronic banking services	3.48	1.40	0.40	1
Laws and regulations related to electronic transfers of funds	3.07	1.39	0.45	2
The Existence of Monitoring organization on the Electronic banking network	3.00	1.36	0.45	3
Laws and regulations related to e-banking	3.10	1.43	0.46	4
The Existence of rules related to electronic banking Offenses	2.90	1.35	0.46	5

4.2. Analytical Statistics (Data Analysis and Testing Research Hypotheses)

Correlation studies:

In the current study Spearman's Correlative Coefficient is used for testing the two correlational hypotheses of the study namely the relationship between technical and legal factors with the variable of the tendency of the villagers to use e-banking services. The obtained results are summarized in Table 4.

Table 4. The Correlation Coefficient among the Research Variables

Hypothesis	The First Variable	The Second variable	r	P-Value	Result
					H1
Technical factors are effective on the tendency of villagers to use e-banking services	Technical factors	The tendency of the villagers	0.475	0.000	Accepted
Legal factors are effective on the tendency of villagers to use e-banking services	Legal factors	The tendency of the villagers	0.413	0.000	H1 Accepted

The obtained Spearman's correlative coefficient for the relationship between the tendency of the villagers and Technical factors ($r = 0.475$) shows that with a 99 percent confidence it can be said that the relationship between

these two variables is significant in 0.01 significance level. In other words from the point of view of participants by improving the status of this factor their tendency towards using e-banking services is also increased. Moreover the obtained Spearman's correlative coefficient for the relationship between the tendency of the villagers and Legal factors ($r = .413$) shows that with a 99 percent confidence it can be said that the relationship between these two variables is significant in 0.01 significance level. In other words from the point of view of participants by improving the status of this factor their tendency towards using e-banking services is also increased.

5. Conclusion

Although e-banking possesses multiple layers but the differentiating factor of e-banking is the presence of software and hardware systems which process the financial information (Kamel and Hassan, 2007). In other words, the optimal integration of all the practices of a bank using modern information technologies provides all the required services to the customers (Blount et al, 2008). But the issue that all the scholars of the field agree upon is making proper use of software, hardware and network technologies and the integration of all the practices as well as being customer-oriented. Today e-banking is more a necessity than an advantage, since firstly virtual electronic banks who are active on the internet are capable to deliver quicker, perfect, more accurate and more desirable services to customers all around the world; secondly the delay caused by the traditional systems causes the banks to lose golden opportunities to attract new customers. Also the elimination of pen and paper systems of trading document exchange in developed countries renders communicating with these countries using old systems impossible. Today the key factor in accepting e-banking is the customer's satisfaction and trust in the bank which indirectly affect accepting e-banking. On the other hand customer's participation is very important in accepting the e-banking practices since this causes decreasing or elimination of transaction between the organization and the customer. The participation of the customer and the bank is a factor that affects the quality of services, satisfaction and finally preserving the customers this is while many people are cautious in using new technologies (Nagsmi, 2004).

Since the psychological factor affects the tendency of customers to use e-banking services and this factor in turn includes three sub-scales of perceived facility, perceived self-usefulness and perceived security, the more the levels of these scales are reported higher by the customers the more their tendency to use e-banking services.

This study was carried out to investigate the impact of Technical and Legal factors on the tendency of villagers to use e-banking services in the Agricultural Bank branches in Ilam Province. In order to realize this objective, 120 customers in the rural branches of this bank were selected as the study sample using stratified random sampling method to participate in the study. The results show that the participants have a good opinion about e-banking and their attitude towards using this new phenomenon was positive and this very issue can be the competitive advantage of the Agricultural Bank in its competition with other banks. The results of the study showed that Technical and Legal factors have a significant impact on attracting the public to use e-banking, with more than 50 percent of the tendency of people to use e-banking due to the presence of these factors. The results of the current study were in congruity with the results obtained by Seidizadeh et al (2008), Babazadeh (2005), Salehi Maman (2004), Laukkanen (2007), Pour Mirza (2008), Azizi Sarxani et al (2008) and Seyyed Javadin and Yazdani (2005).

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